

ATTACHMENTS TO COMMENT LETTER 0008

A PRELIMINARY PROPOSAL
for the
PRIVATE SECTOR FINANCING
of the
PROPOSED TEHACHAPI MOUNTAIN RAILROAD TUNNELS
with the
COMBINATION FREIGHT AND PASSENGER SERVICE
for the
CALIFORNIA HIGH SPEED RAIL PROJECT

Presented to

Governor Arnold Schwarzenegger
State of California
Office of the Governor
State Capitol Building
Sacramento, California 95814

Submitted by

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June 5, 2004

SUMMARY

- Project Description:** Construction of three major railroad tunnels through the Tehachapi Mountains between Los Angeles and Bakersfield and with a total route distance of 76 miles of a total railroad network of 290 miles for the proposed California High Speed Rail system.
- Transportation Modes:** Facilitate intercity passenger transportation through high-speed rail passenger transport plus commuter rail passenger service in conjunction with intermodal freight transport of trucks plus long distance transport of containerized and merchandise freight.
- Tunnel Facilities:** The following specific railroad tunnel projects will be constructed between Los Angeles and Bakersfield.
1. Grapevine Grade Tunnel – 32 miles long triple tube with scheduled intermodal truck haul by rail plus high-speed intercity passenger trains between Grapevine and Castaic parallel to the Interstate 5 freeway route between Los Angeles and Bakersfield .
 2. Tehachapi Pass Tunnel – 29 miles long double tube with long distance freight train haul plus high-speed intercity passenger trains between Caliente and Mojave parallel to the State Highway 58 route from Bakersfield to Mojave .
 3. Soledad Pass Tunnel – 17 miles long double tube with high speed Intercity passenger trains plus suburban commuter trains to serve the Antelope Valley and Palmdale Airport freight between Ravenna and Saugus for the line between Santa Clarita and Palmdale.

Cost Estimates: **The following estimates are made of the capital costs of the three railroad tunnel projects:**

- 1. Grapevine Grade Tunnel:
 Double Tube - \$3.5 Billion;
 Triple Tube - \$5.3 Billion.**
- 2. Tehachapi Pass Tunnel:
 Double Tube - \$3.5 Billion;**
- 3. Soledad Pass Tunnel:
 Double Tube - \$1.7 Billion;**
- 4. Total Capital Cost:
 All Three Tunnels: \$8.7 – 10.5 Billion.**

Financing Mechanism: Long-term debt financing mechanisms are to be considered as follows:

- 1. Revenue Bond Financing – Issued by California High Speed Rail Authority or by California Department of Transportation;**
- 2. Direct Federal Loan – Issued through Railroad Rehabilitation and Infrastructure Financing (RRIF) program under the Intermodal Surface Transportation Efficiency Act (ISTEA) under Federal Railroad Administration of U. S. Department of Transportation.**
- 3. Federally Guaranteed Loan – Issued through existing commercial banks with a 90 percent principal guarantee plus subsidized interest under Section 511 of the Railroad Revitalization and Regulatory Reform Act (4R – 511) through the Federal Railroad Administration of the U. S. Department of Transportation, Washington, D. C.**

Recommended Action: Request a 4R – 511 Federally guaranteed loan through commercial bank(s) of up to \$5.0 Billion for construction of the 32 mile long Grapevine Grade railroad tunnel as an initial double track facility for intermodal diversion truck rail haul and Amtrak passenger trains between Los Angeles and Bakersfield followed by high speed passenger trains upon approval of ballot initiative.

Loan Repayment: Federally guaranteed loan repayment through user fees charged to trucking companies plus railroads for freight plus usage fees charged to the State of California for high speed intercity passenger trains plus the Southern California Regional Rail Authority for commuter trains

Employment Creation:

The construction of the three railroad tunnels will result in the following numbers of jobs for 10 to 15 years.

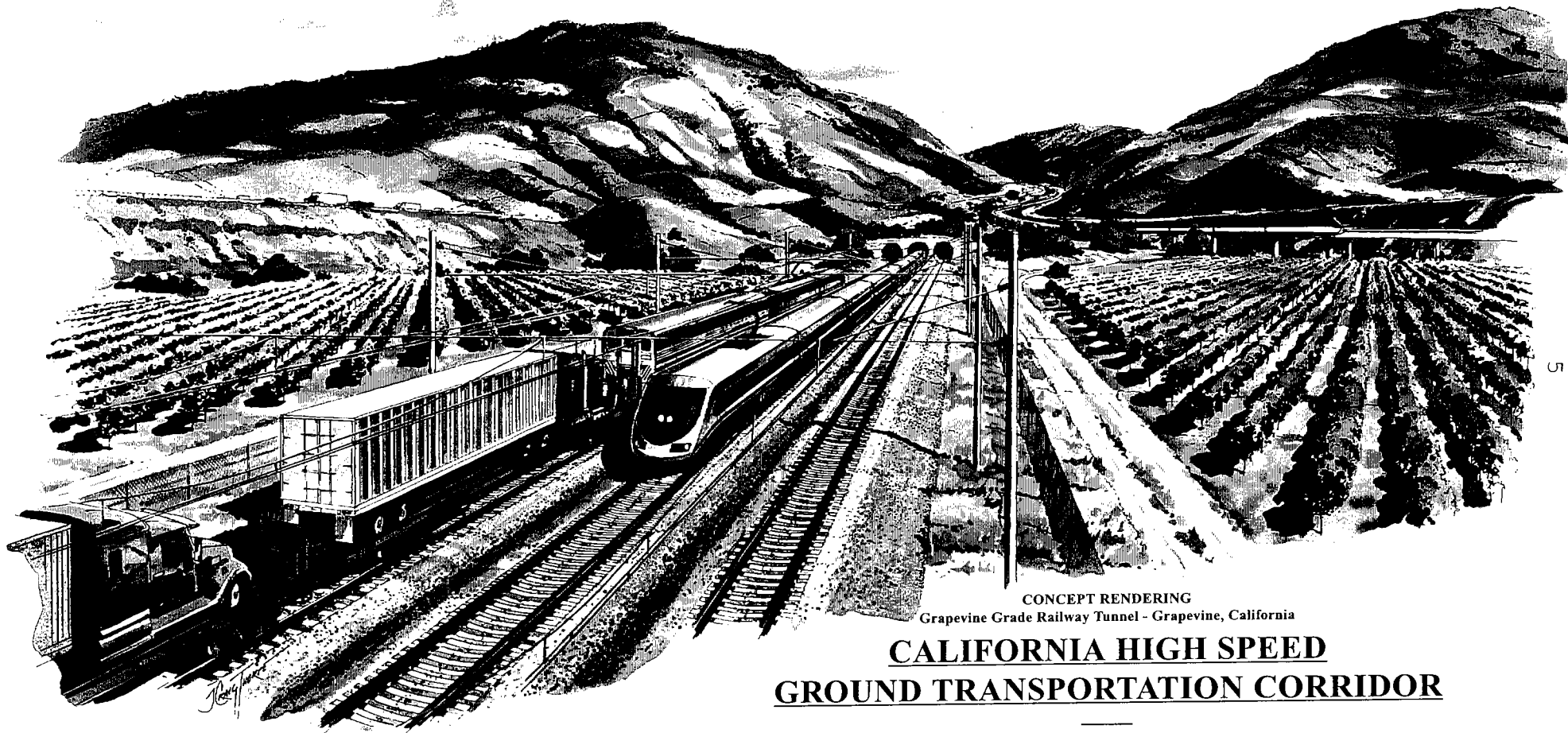
1. Direct Construction – 15,000 – 25,000 jobs;
2. Indirect Services - 35,000 – 50,000 jobs;
3. Total Employment - 50,000 – 75,000 jobs.

Project Benefits: The following benefits are to be expected from the construction of the three railroad tunnels through the Tehachapi Mountains between Los Angeles and Bakersfield:

1. It will be possible for the California high speed rail system to have two parallel routes between Los Angeles and Bakersfield via both the Grapevine Grade and the Antelope Valley within the project budget to connect Northern and Southern California;

- 2. Freight traffic revenues as well as passenger traffic revenues can be used for repayment of the major capital expenditures required for the major railroad tunnel infrastructure through the Tehachapi Mountains between Los Angeles and Bakersfield ;**
- 3. The very heavy truck traffic along the Interstate 5 freeway over the Grapevine Grade between Los Angeles and Bakersfield can be significantly reduced along with corresponding reductions in highway maintenance costs, roadway traffic congestion and air pollution emissions over a long term period;**
- 4. The major railway freight traffic congestion bottleneck over the Tehachapi Mountains through the famous Tehachapi Loop can be Greatly reduced with large-scale rail capacity expansion for long distance containerized and merchandise freight transport between Northern California and the Midwest and South;**
- 5. There are significant economic benefits to the State of California through increased employment creation and associated business expansion and improved tax revenues;**

Similar Project: The financing of the Grapevine Grade Railroad tunnel project is very similar to the 22 – mile long Alameda Corridor project between the San Pedro Bay ports and downtown Los Angeles at a cost of \$2.45 billion funded by a Federal loan and part revenue bonds with per container transport fees.



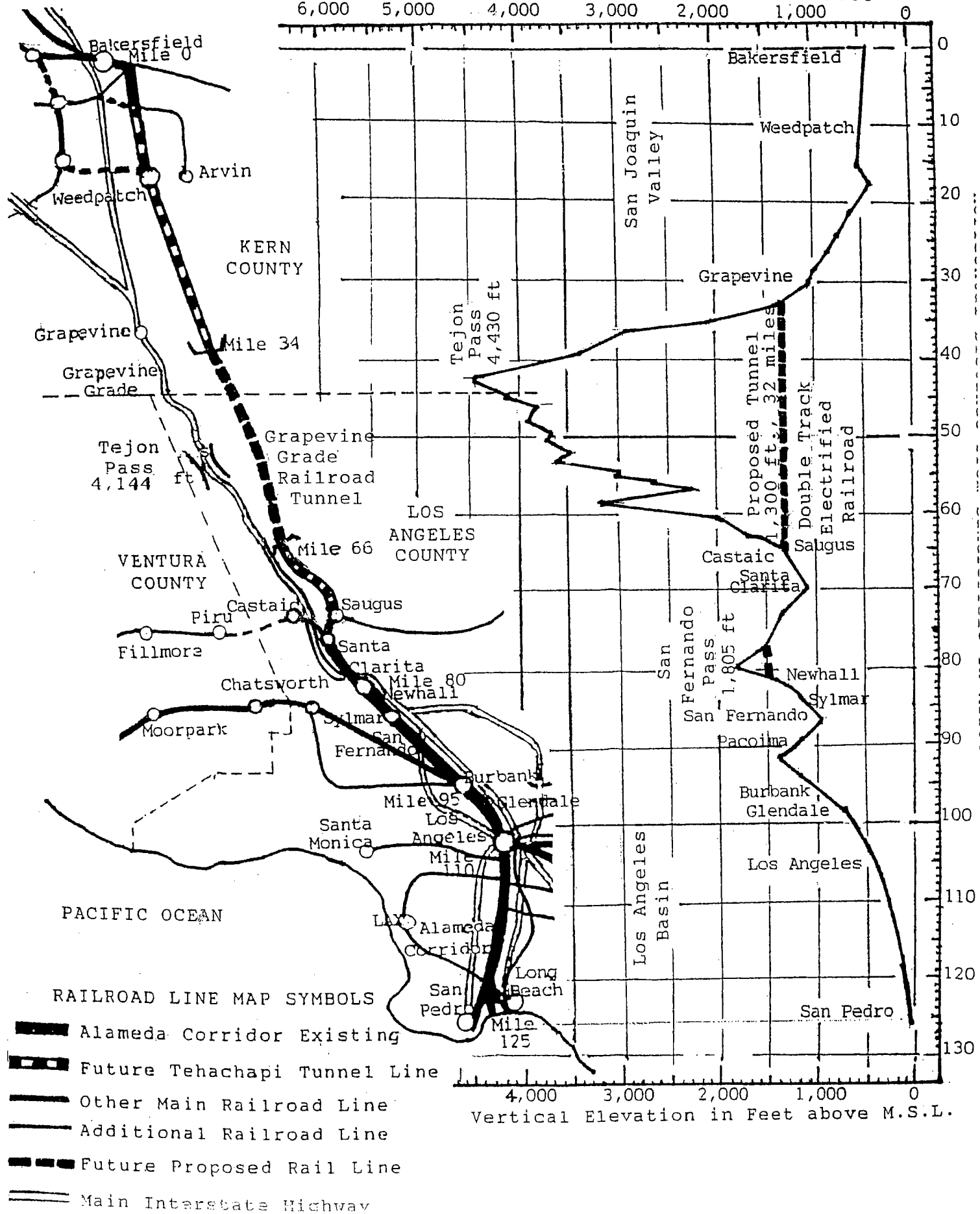
CONCEPT RENDERING
Grapevine Grade Railway Tunnel - Grapevine, California

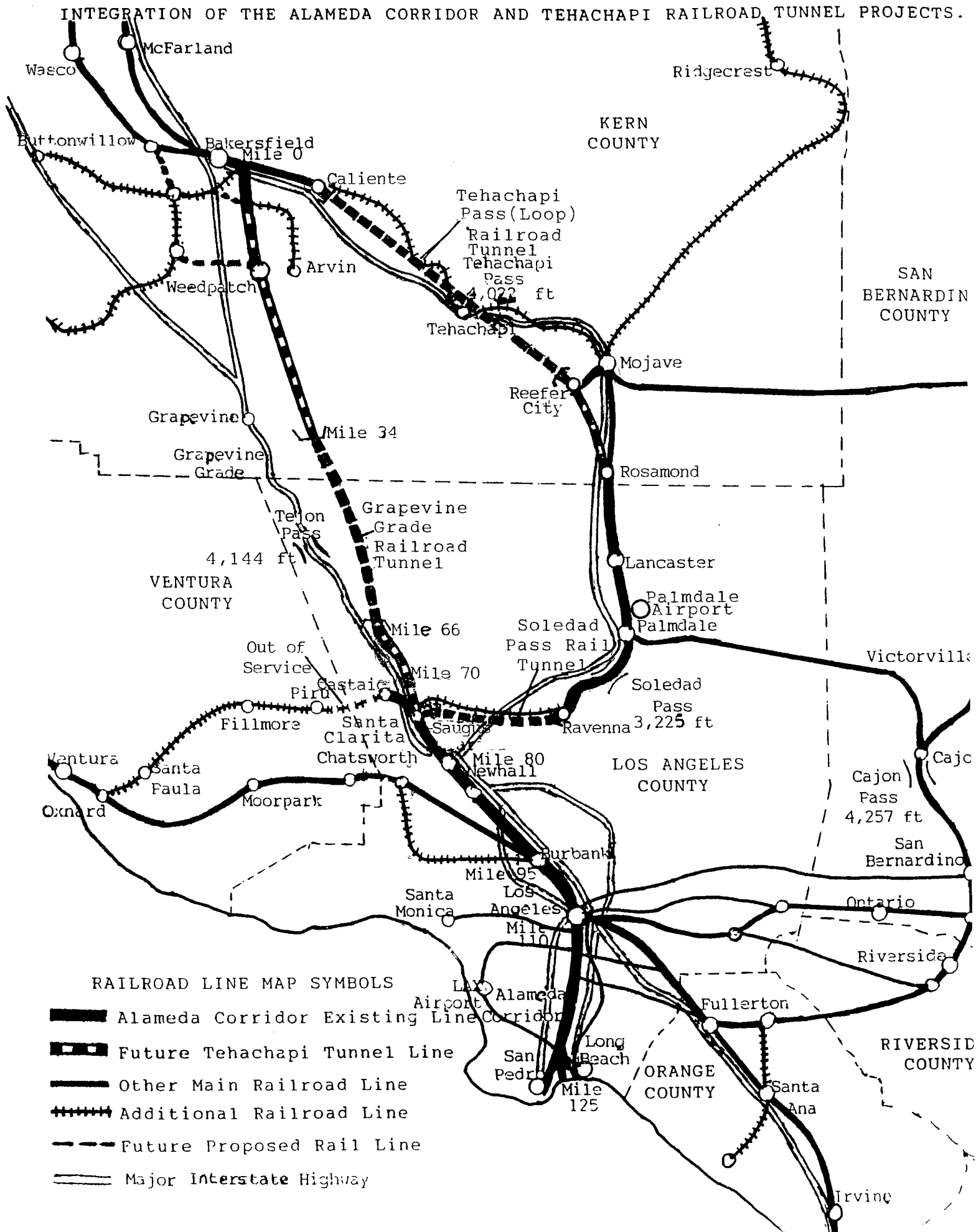
CALIFORNIA HIGH SPEED
GROUND TRANSPORTATION CORRIDOR

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Commissioned by Cooper Consulting Co., Kirkland, WA, for
California Governor Arnold Schwarzenegger

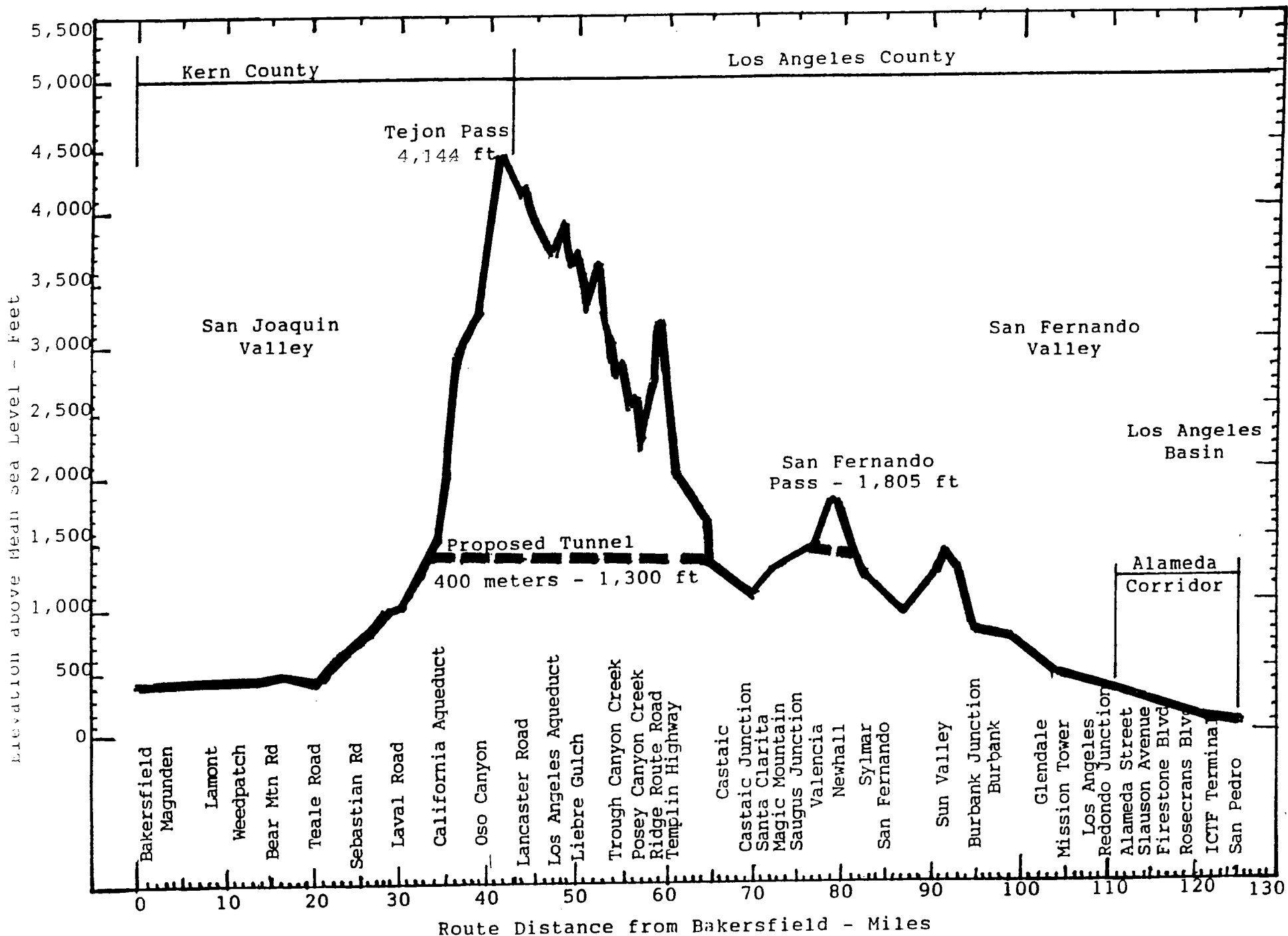
HORIZONTAL AND VERTICAL PROFILE OF THE PROPOSED RAILROAD TUNNEL IN THE TEHACHAPI MOUNTAINS FROM GRAPEVINE TO CASTAIC UNDER TEJON PASS

Vertical Elevation above Sea Level in Feet

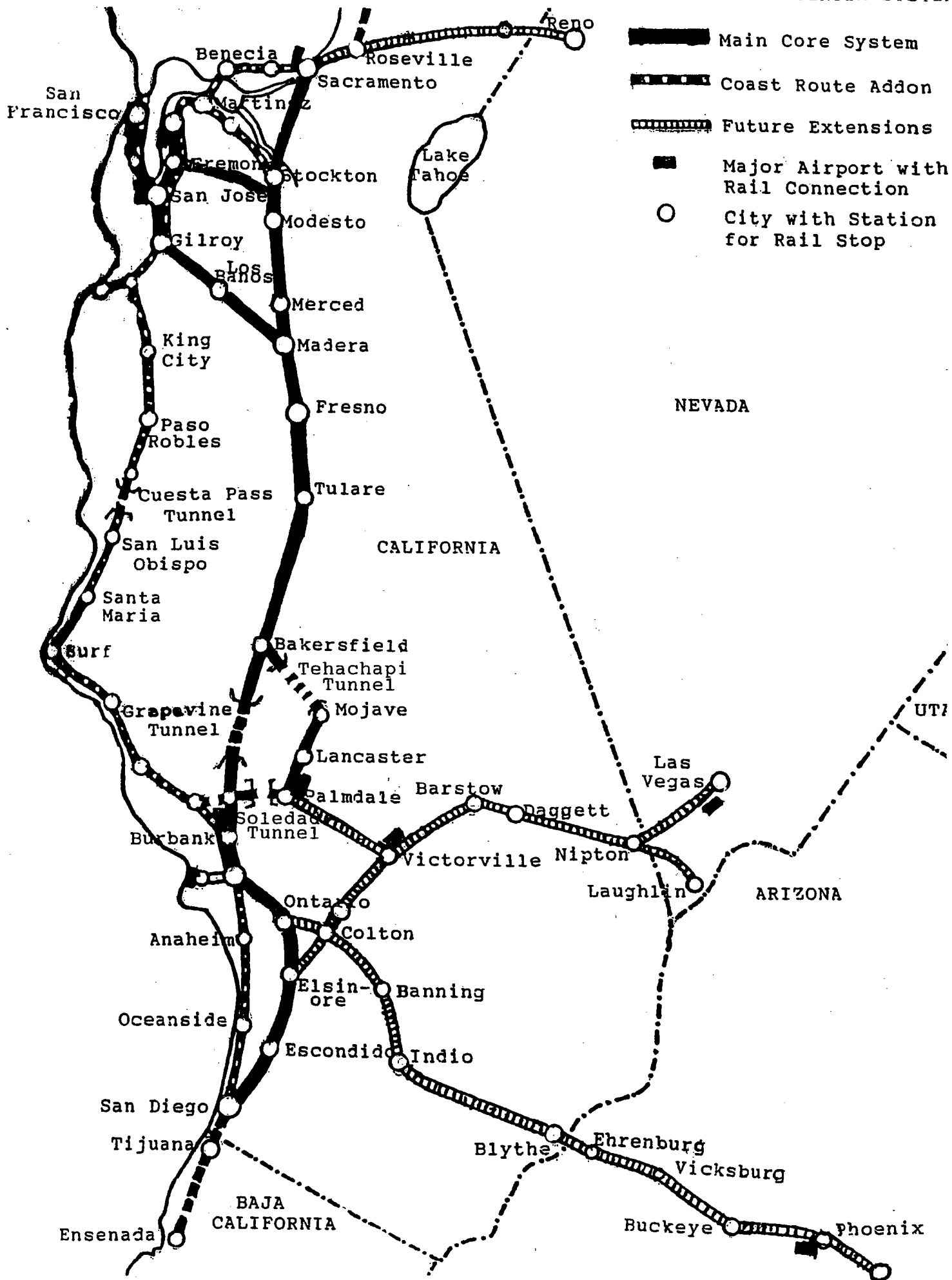




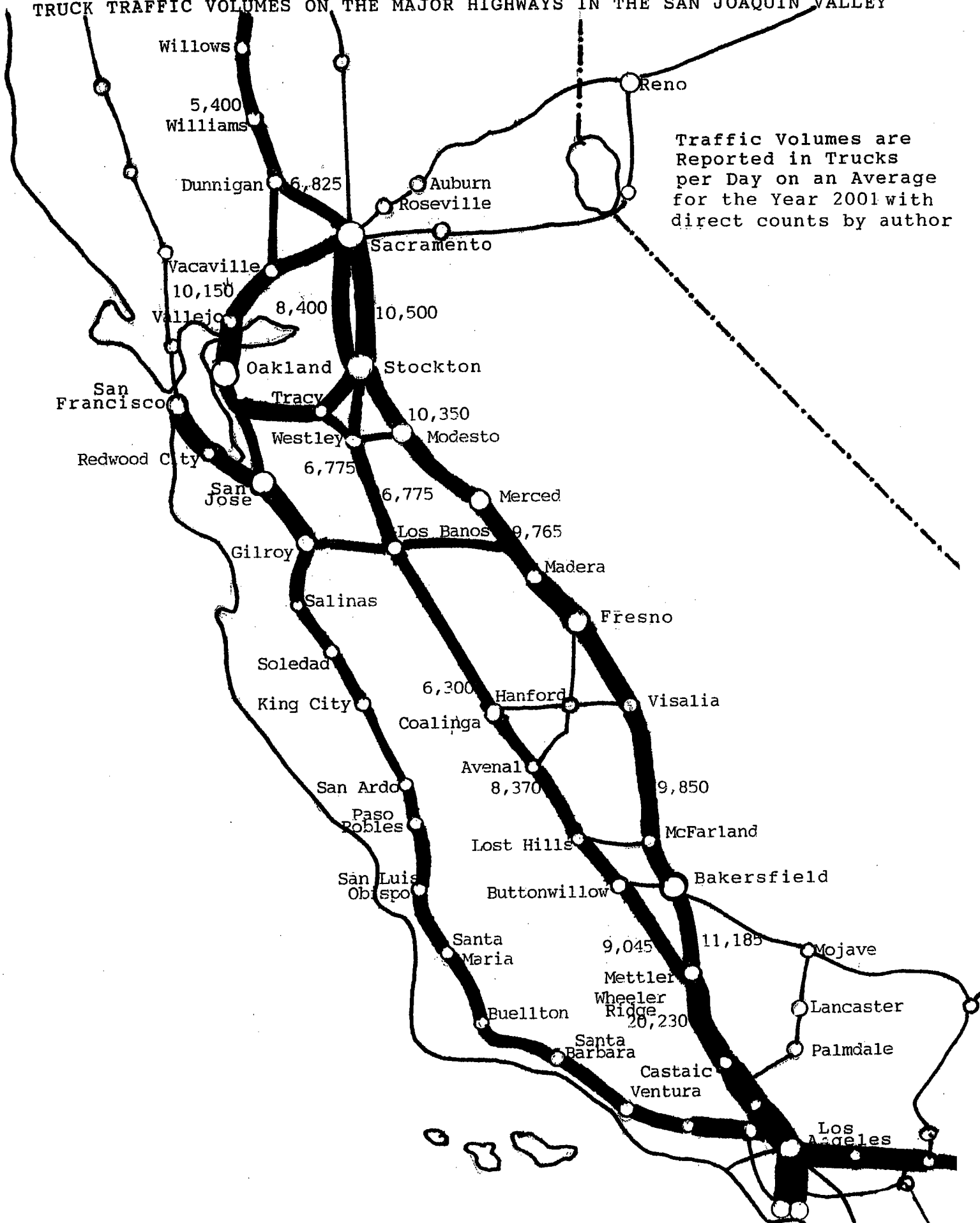
VERTICAL ELEVATION PROFILE FOR THE PROPOSED RAILROAD TUNNEL THROUGH THE TEHACHAPI MOUNTAINS



PROPOSED ROUTING OF THE EXTENDED CALIFORNIA HIGH SPEED RAIL PASSENGER SYSTEM



TRUCK TRAFFIC VOLUMES ON THE MAJOR HIGHWAYS IN THE SAN JOAQUIN VALLEY



REVISED VERSION

of the

POTENTIAL PRIVATE SECTOR FINANCING MECHANISMS

for the

PROPOSED TEHACHAPI MOUNTAIN RAILROAD TUNNELS

with the

COMBINATION FREIGHT AND PASSENGER SERVICE

of the

CALIFORNIA HIGH SPEED RAIL PROJECT

and the

FUTURE WEST COAST HIGH SPEED RAIL NETWORK

Prepared by

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For Presentation to the
Public Hearing of the
California High Speed Rail Authority
Fresno City Council Chambers
2600 Fresno Street
Fresno, California

April 28, 2004

The State of California is planning to construct a new-electrified high-speed rail passenger system of approximately 700 miles in length at an estimated capital cost of \$37 billion which will be designed to carry up to 68 million passengers annually (185,000 passengers/ day). The proposed high speed rail passenger system is planned to connect all of the major metropolitan areas of the State of California together into a single route network in both Southern and Northern California with construction over a 10 to 16 year period. This proposed high speed rail passenger system serving the main urban areas of California can then be built at a much lower cost than the estimated \$82 billion which would be required to expand its existing highway and airport system with 2,970 miles of new highway lanes and 60 new airport gates to provide the same expected future traffic volumes.

The high-speed passenger trains are expected to operate at speeds of up to 220 miles per hour with transit times between Los Angeles and San Francisco of less than 2.5 hours.

Perhaps the most difficult and costly part of the entire 700 – mile high speed rail system in California is the 110 to 120 mile section between Los Angeles and Bakersfield because of the alternative routes, the mountainous terrain and the potential geologic activity in the area. There have been two alternative routes proposed for this section between Los Angeles and Bakersfield along the Interstate 5 freeway over the Grapevine Grade and through the Antelope Valley in parallel to State Highway 14 and 58. The proposed Antelope Valley route is longer by 10 to 20 miles but has a significant rider ship potential in the Palmdale and Lancaster areas, and would serve the future Palmdale International Airport as a major air traffic hub. The proposed Interstate 5 freeway route is shorter and saves 10 to 12 minutes for trip times in the main project traffic market between San Francisco and Los Angeles, but involves extensive tunneling. The difficulty is that it adds significantly to the capital cost of the project to build both routes by at least \$2.0 to 3.5 billion to serve these areas so that there would be benefits to then developing alternative financing structures.

In addition, there is a significant and growing problem of rapidly increasing truck traffic for freight transport on all of California's highways. Nowhere is this problem of increasing truck traffic of greater concern than along the main Interstate 5 freeway through California because of rising traffic congestion, air pollutant emissions and roadway maintenance costs. Nowhere is the problem of increasing truck traffic volumes along the Interstate 5 freeway as California's main north – south traffic artery greater than over the 45 – miles between Wheeler Ridge and Sylmar via the Tehachapi Mountains, and especially over the steep 7 mile long Grapevine Grade between Grapevine and Castaic.

In parallel, the rapidly increasing freight traffic volumes over its crowded railroad lines are creating a number of congestion bottlenecks. A major cause is the growing container traffic to and from the Ports of Los Angeles and Long Beach in Southern California as well as to and from the Port of Oakland in Northern California. Nowhere is this rail traffic bottleneck more severe than over the 75 mile Tehachapi Mountain line between Bakersfield and Mojave, which is an antiquated largely single-track line built in the 1870's which includes the notorious Tehachapi Loop. This Tehachapi Mountain railroad line has been basically saturated at a traffic level of 60 to 70 freight trains per day for 10 years. It is badly in need of expansion to relieve is probably California's greatest single rail transportation bottleneck.

A solution is proposed herein the present paper which will allow for all of the above – described problems to be either mitigated or eliminated as discussed in the following paragraphs. It is proposed to construct the three major railroad tunnels which will be required through the Tehachapi Mountains for the California High Speed Rail Passenger System through private long term low interest financing mechanisms via a public – private – partnership vehicle. The financing instruments to be utilized can be either tax-exempt revenue bonds or other suitable long-term low interest rate debt financing instruments. These obligations will be repaid through unit charge assessments on a per train basis to be levied upon the operators of the individual systems.

This financing method is similar to that utilized for repayment of the port revenue bonds and the Federal loan used for the construction of the 22 – mile long Alameda Corridor project in Southern California by the Ports of Los Angeles and Long Beach. For freight transport, the unit charge assessments would be levied against the private railroads (Union Pacific or Burlington Northern Santa Fe) on a per train or per ton basis or against trucking companies who would utilize the intermodal service for diversion of either trailers or whole trucks hauled by flat car from road to rail and or its operator. For the affected commuter rail passenger trains operated by the Southern California Regional Rail Authority (SCRRA) the financing repayment charges would be levied on a unit per train or per passenger basis.

A separate unit per train or per passenger charge would need to be levied against the California High Speed Rail Authority (CHSRA) for the passage of the high speed passenger trains through the individual tunnels to the private entity for debt service repayment as well as track maintenance and electricity cost reimbursement until the financing instruments are retired over a long term period.

The three railroad tunnels to be constructed through the Tehachapi Mountains between Los Angeles and Bakersfield as a part of the proposed long term low interest private sector financing mechanisms are as follows: 1) the 32 mile long north – south Grapevine Grade railroad tunnel through the Tehachapi Mountains between Grapevine and Castaic for the route from Los Angeles to Bakersfield parallel to the Interstate 5 freeway; 2) the 29 mile long east – west Tehachapi Mountain railroad tunnel between Caliente and Reefer City for the route from Bakersfield to Mojave parallel to State Highway 58; 3) the 17 mile long east – west Soledad Canyon railroad tunnel between Ravenna and Saugus for the Antelope Valley line between Santa Clarita and Palmdale. These three railroad tunnels have a total distance of 78 miles, and will constitute critical components of the proposed California High Speed Rail System between Los Angeles and Bakersfield to connect Northern and Southern California together into a single network.

The high speed passenger trains of the public California High Speed Rail Authority are expected to operate in all three of the proposed Grapevine Grade, Tehachapi Mountains and Soledad Canyon railroad tunnels, with the major traffic flow through the Grapevine tunnel. In contrast, the main freight train flows will be through the Tehachapi Mountain railroad tunnel as expected to be freight trains of the private Union Pacific Railroad and the Burlington Northern Santa Fe Railway carrying intermodal containers and other commodities. In addition, there are expected to be large scale movements of both intermodal trailers plus whole trucks on a scheduled shuttle service between Los Angeles and Bakersfield and beyond through the Grapevine Tunnel plus other traffic as well. The major movement of the public commuter trains will be through either the proposed Grapevine or Soledad tunnels between Los Angeles and either Bakersfield in the San Joaquin Valley or Lancaster in the Antelope Valley with relating little commuter train movements through the Tehachapi Mountain railroad tunnel.

It is expected that the greatest train traffic flows would be through the Grapevine Grade railroad tunnel because of the large-scale high-speed passenger train movements as well as the expected intermodal diversion truck transport service. There would be large-scale long distance intermodal container and merchandise manifest freight train movements through the Tehachapi Mountain railroad tunnel which would be expected to be primarily long distance between California and the Midwest, South and East plus the high-speed passenger trains serving the Antelope Valley. In addition, the Soledad Canyon railroad tunnel would handle the high-speed passenger trains serving the Antelope Valley plus the commuter trains as well as a limited number of freight trains carrying a variety of commodities.

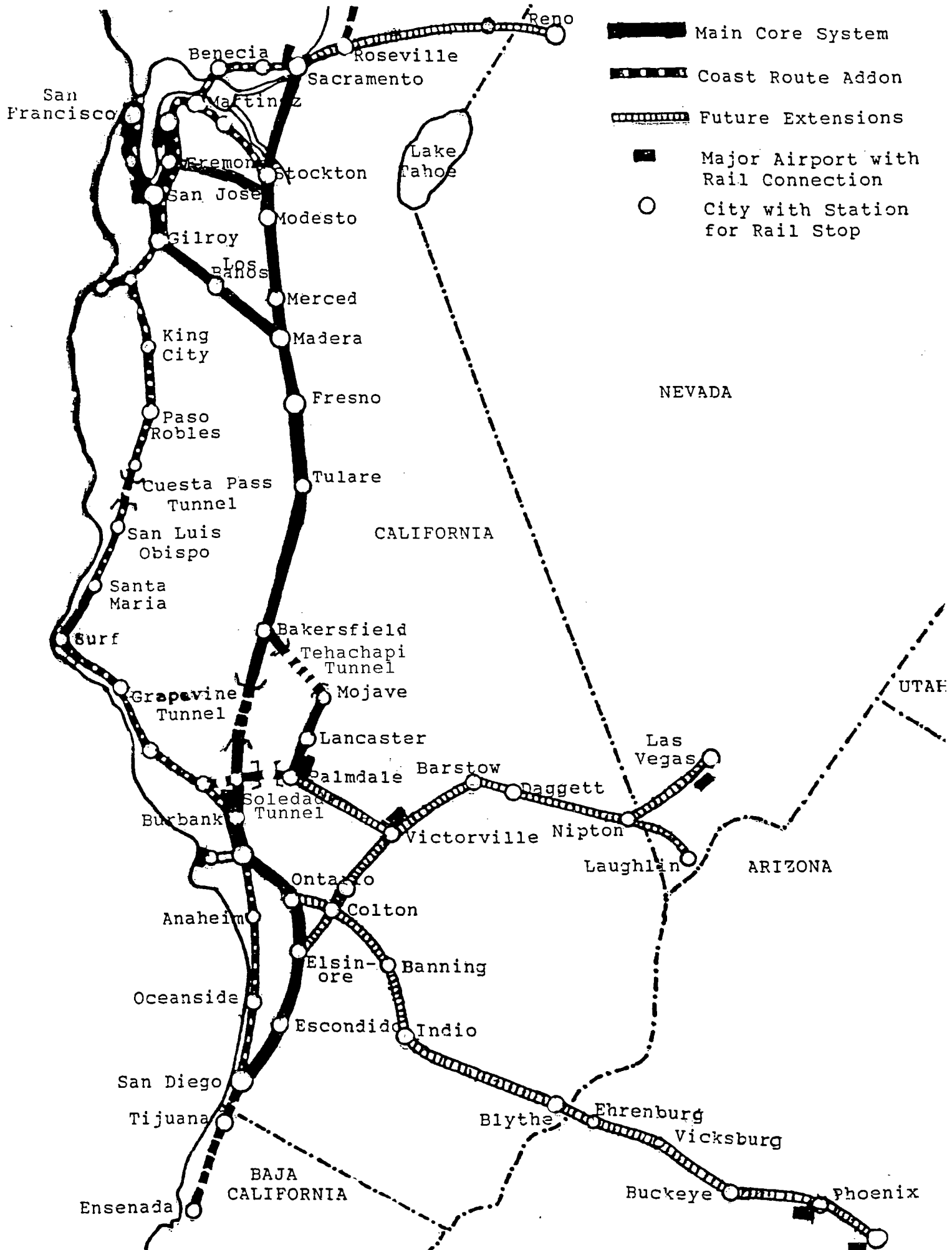
The potential advantage of the proposed financing mechanism for the expected private sector financing of the major railroad tunnel infrastructure projects between Los Angeles and Bakersfield is that the initial capital cost of the high speed rail passenger project to be paid for by funds raised directly by the California High Speed Rail Authority revenue bond issue to be approved by the voters could be significantly reduced by as much as \$8 to 11 billion or used elsewhere.

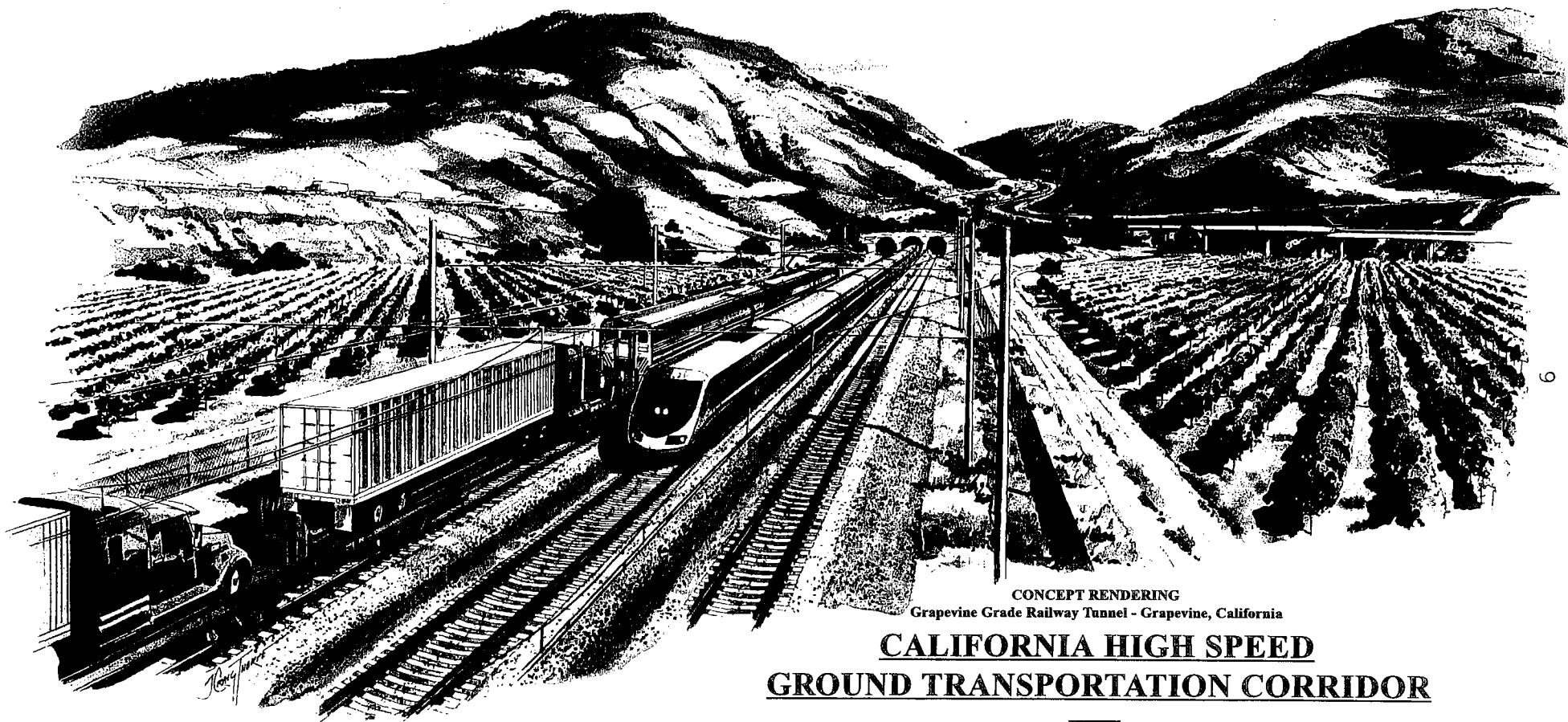
The available funds of the Authority for initial project investment could then be stretched further so that either or both of the Antelope Valley or Inland Empire interior lines could be initially built because capital expenditures can be converted into operating expenditures. The proposed private sector financing mechanism can then be utilized to reduce the direct financial burden upon the already – strapped State of California so that other needs could then be met.

The proposed approach to the partial private sector financing of the California High Speed Rail Project makes it possible to not only make a cost – effective investment in improving intercity passenger mobility but to also improve freight transport capacity as well. The critical rise of intercity truck traffic and its associated roadway congestion, maintenance cost and air pollution burden can then be reduced while the urban benefits of truck transport can still be maintained. In addition, the vital and necessary transport of intercity freight on California's critical railroad network can be maintained and expanded while freeway traffic capacity is relieved. In all, private sector financing of the major railroad infrastructure for the Grapevine Grade, Tehachapi Mountain and Soledad Canyon railroad tunnels, can be and should be an essential element of the proposed California High Speed Rail System between Los Angeles and Bakersfield.

The same concepts could be applied to the subsequent future development of an overall West Coast high-speed rail corridor for freight and passenger service. It would then be possible to connect the California high-speed rail system with the Cascadia Corridor now being developed between Vancouver, British Columbia and Eugene, Oregon by the States of Oregon and Washington. There would also need to be major railroad infrastructure projects to be constructed through the Sacramento River Canyon, through the Siskiyou Mountains and the Cascade Mountains as well as major bridge or tunnel crossings of the Columbia River and the Fraser River. It is suggested that the three States of California, Oregon and Washington consider establishing a so-called Tri State High Speed Rail Development Authority to implement this project.

PROPOSED ROUTING OF THE EXTENDED CALIFORNIA HIGH SPEED RAIL PASSENGER SYSTEM





CONCEPT RENDERING
Grapevine Grade Railway Tunnel - Grapevine, California

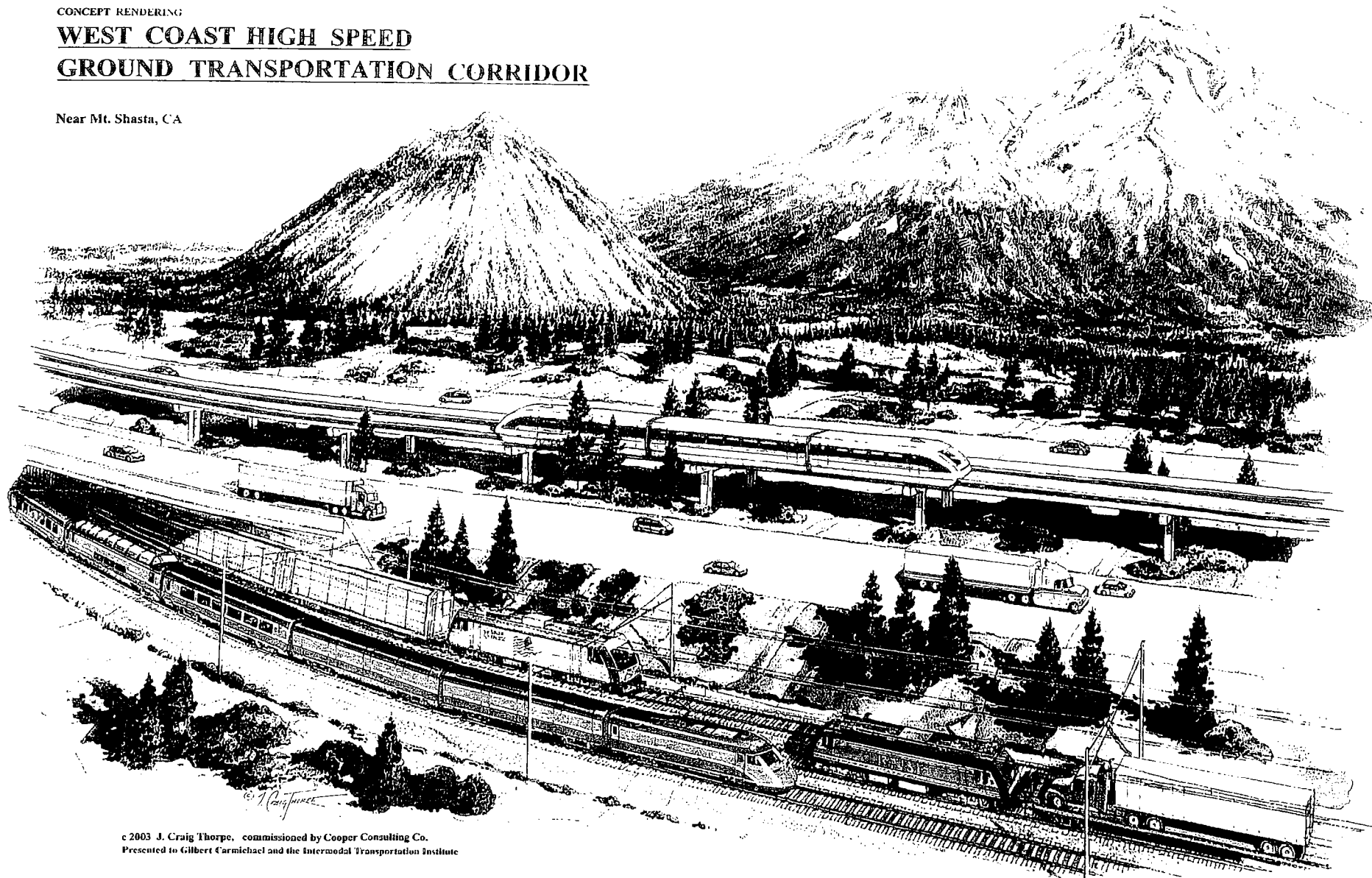
CALIFORNIA HIGH SPEED **GROUND TRANSPORTATION CORRIDOR**

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Commissioned by Cooper Consulting Co., Kirkland, WA, for the
California High Speed Rail Authority, Sacramento, CA

CONCEPT RENDERING

WEST COAST HIGH SPEED GROUND TRANSPORTATION CORRIDOR

Near Mt. Shasta, CA

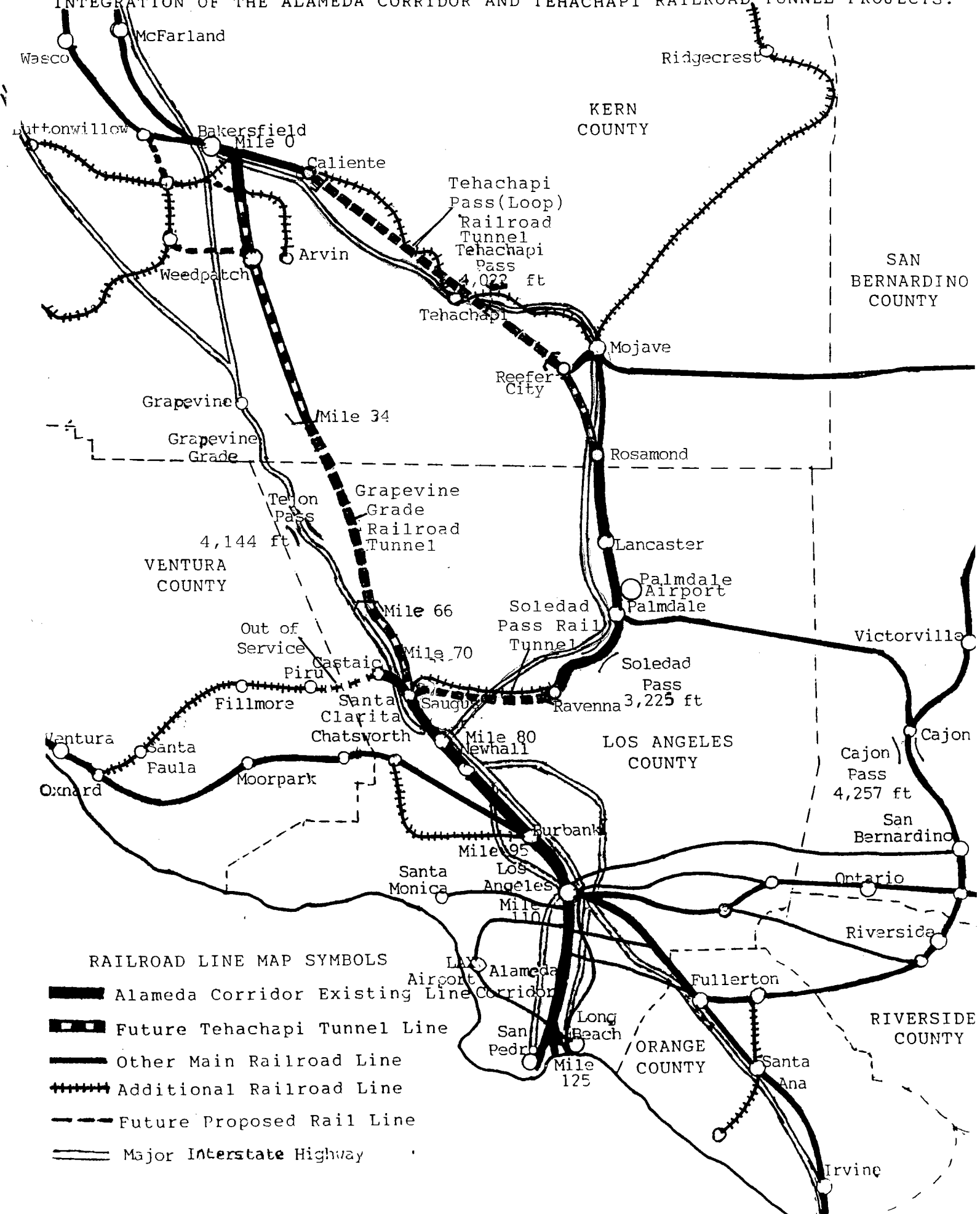


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Presented to Gilbert Carmichael and the Intermodal Transportation Institute

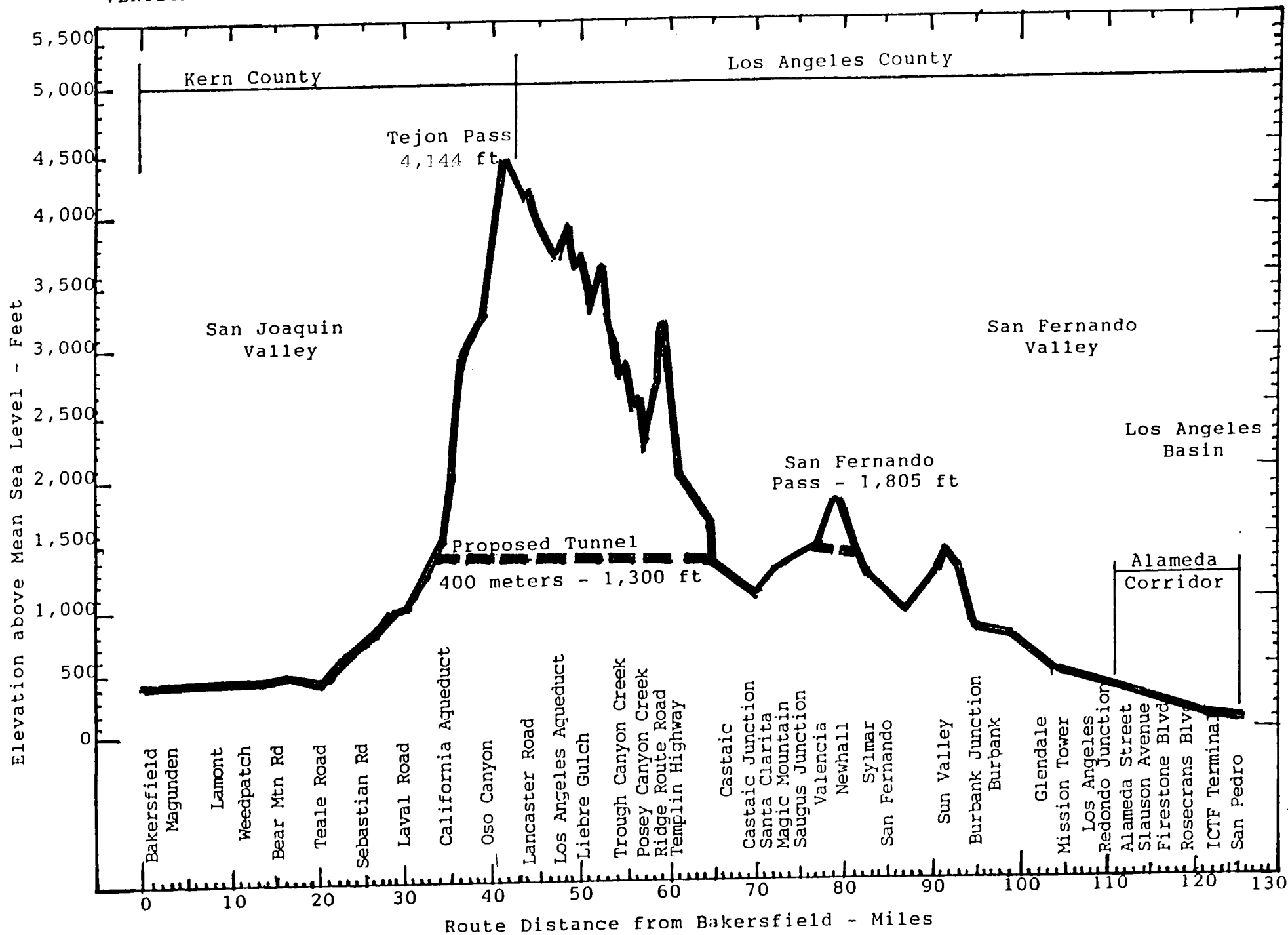
TEHACHAPI MOUNTAIN

RAILROAD TUNNELS

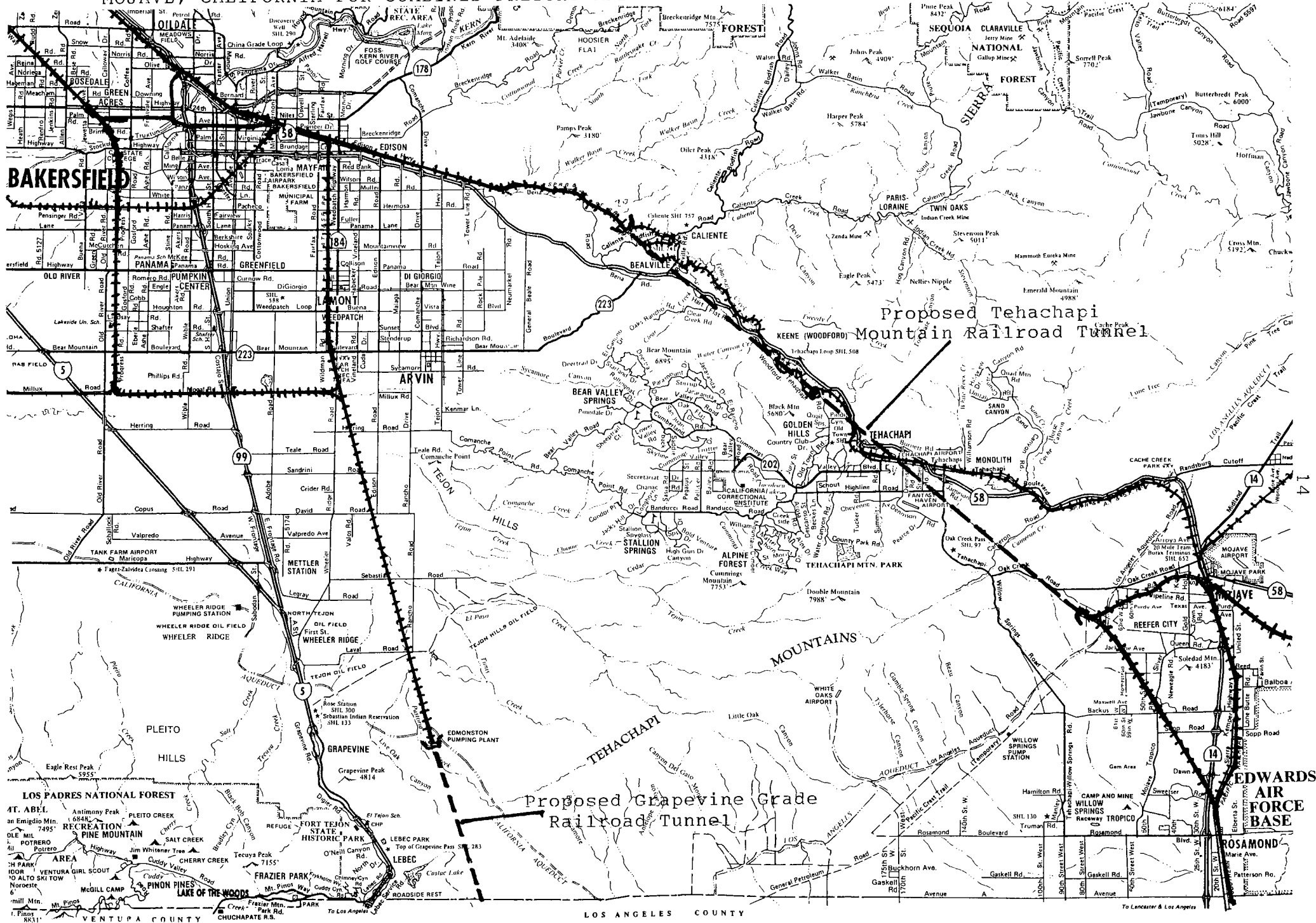
INTEGRATION OF THE ALAMEDA CORRIDOR AND TEHACHAPI RAILROAD TUNNEL PROJECTS.



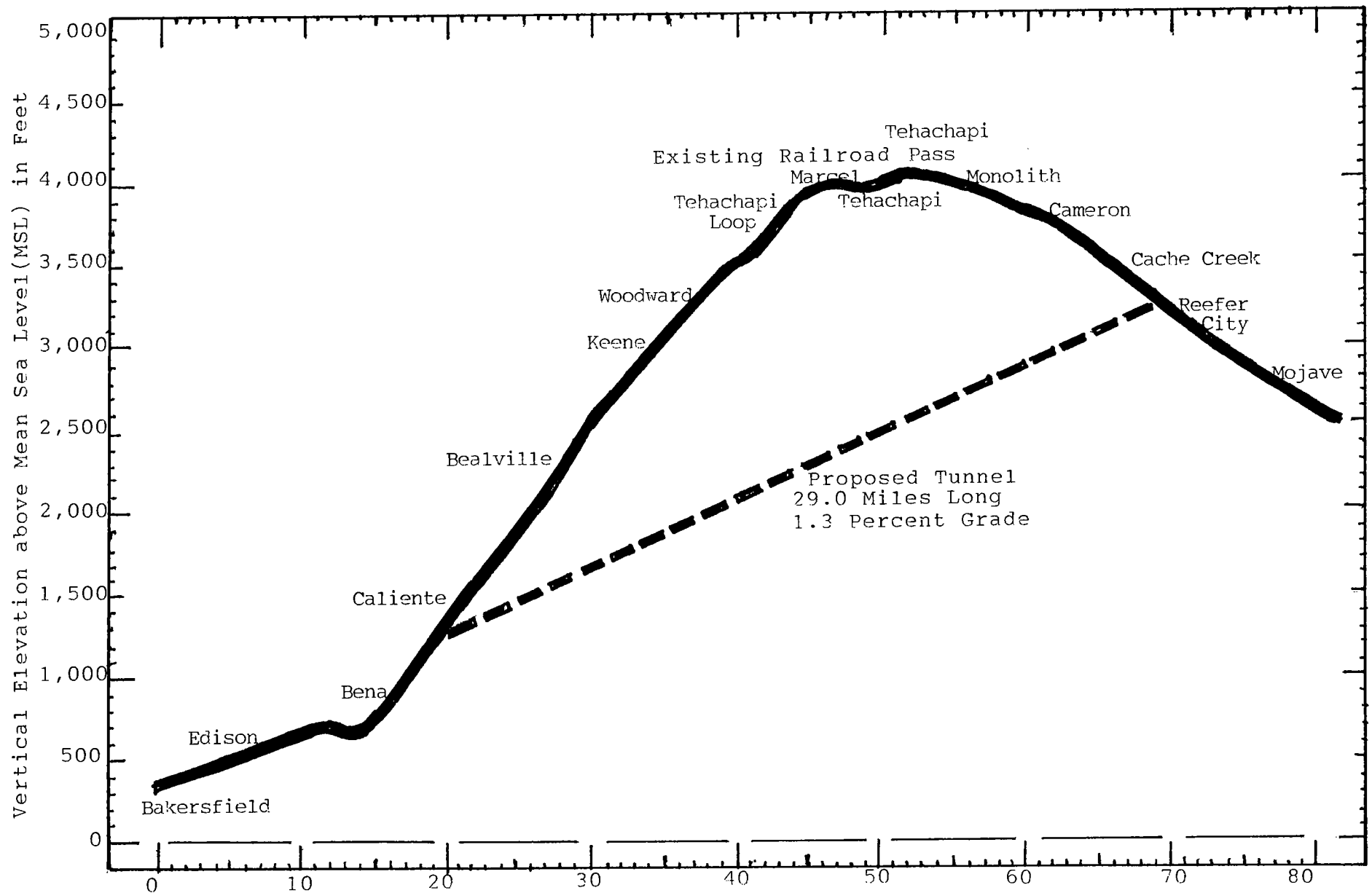
VERTICAL ELEVATION PROFILE FOR THE PROPOSED RAILROAD TUNNEL THROUGH THE TEHACHAPI MOUNTAINS



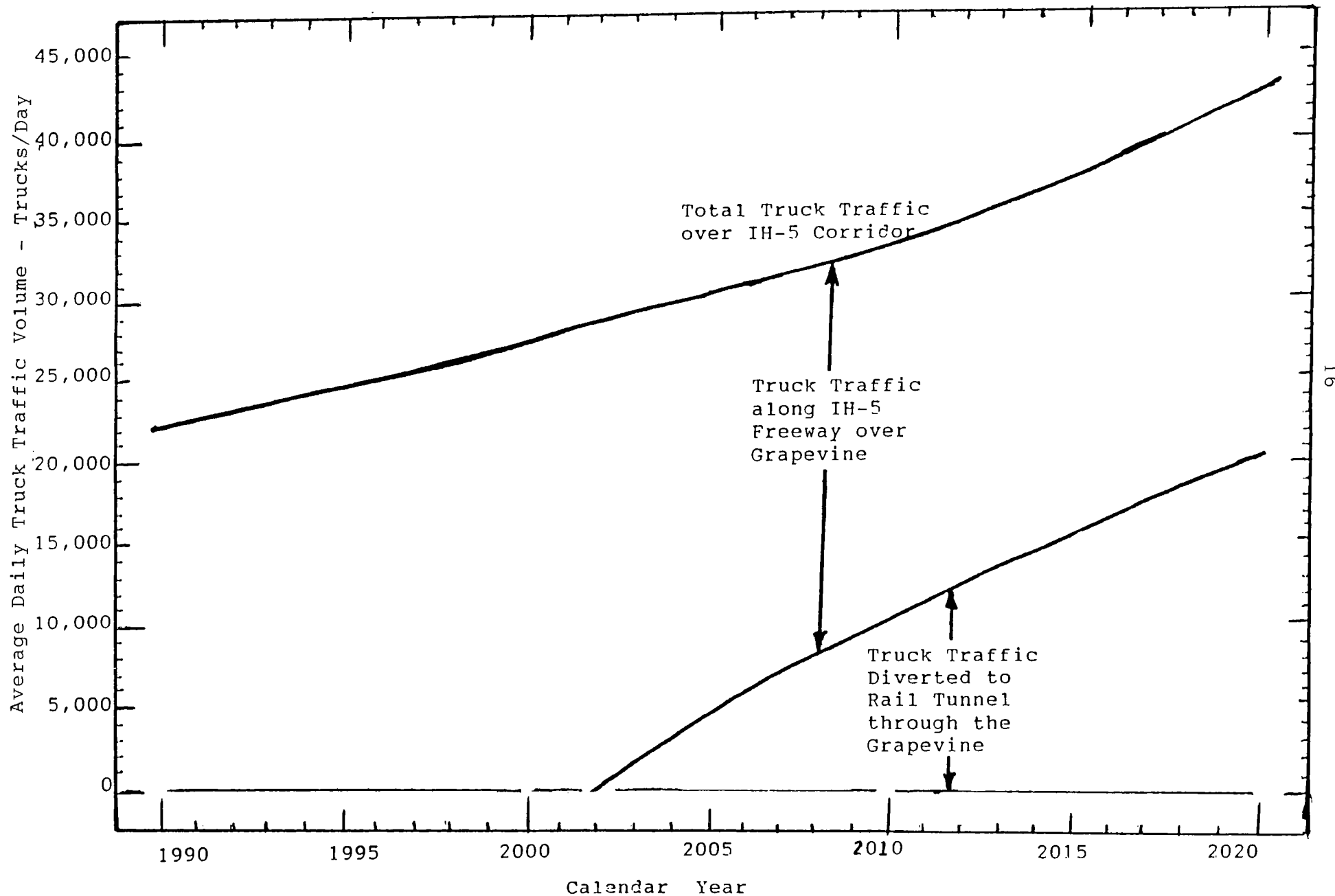
ROUTE LOCATION OF THE PROPOSED TEHACHAPI MOUNTAIN RAILROAD TUNNEL BETWEEN BAKERSFIELD AND MOJAVE, CALIFORNIA FOR COMBINED FREIGHT AND PASSENGER SERVICE WITH THE HIGH SPEED RAIL LINE



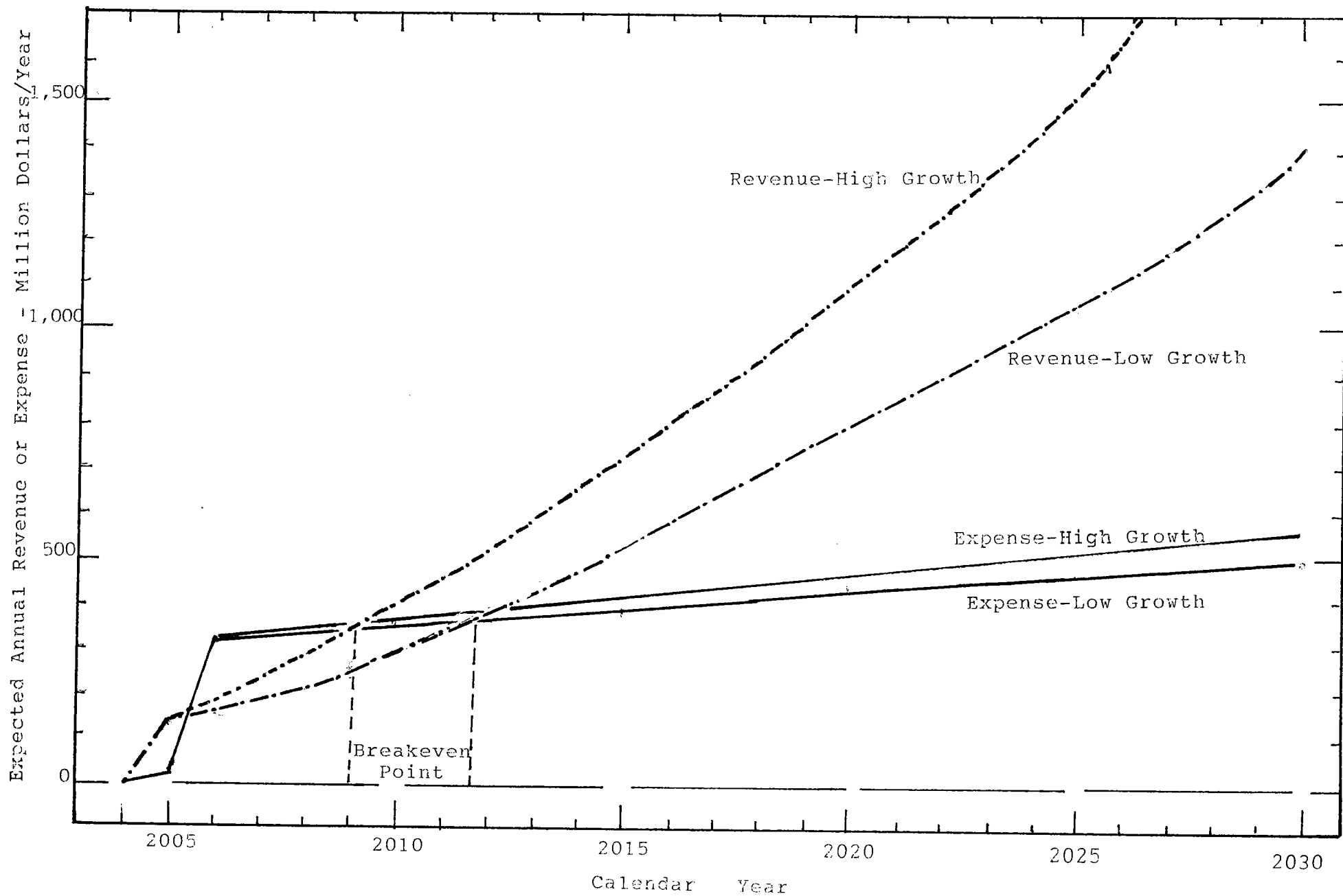
VERTICAL ELEVATION PROFILE OF THE PROPOSED TEHACHAPI MOUNTAIN RAILROAD TUNNEL BETWEEN THE CITIES OF BAKERSFIELD AND MOJAVE, CALIFORNIA AS PART OF THE CALIFORNIA HIGH SPEED RAIL LINE



ESTIMATED EFFECT OF INTERMODAL TRAFFIC DIVERSION OF TRUCK TRAFFIC FROM ROAD TO RAIL ALONG THE INTERSTATE 5 GOLDEN STATE FREEWAY BETWEEN LOS ANGELES AND BAKERSFIELD RESULTING FROM THE PROPOSED CONSTRUCTION OF THE GRAPEVINE GRADE RAILROAD TUNNEL FROM WEEDPATCH TO CASTAIC



PRELIMINARY ESTIMATE OF CASH FLOW PROJECTIONS FOR A PROPOSED TEHACHAPI MOUNTAIN RAILROAD TUNNEL



**Grapevine Grade
Tunnel Project
Cash Flow Analysis \$US**

Page 1 of 2

			Utilization of Truck Traffic					
			10%	15%	20%	25%	50%	75%
Traffic Assumptions:								
Truck Traffic (number of trucks per year)	7,300,000		730,000	1,095,000	1,460,000	1,825,000	3,650,000	5,475,000
Passenger Trains	100 /day		36,500	36,500	36,500	36,500	36,500	36,500
Revenue Assumptions:								
Revenue per Truck			\$ 140	\$ 140	\$ 140	\$ 140	\$ 140	\$ 140
Revenue per Passenger Train			\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000	\$ 7,000
Revenue:								
Trains:								
Intermodal Trains			\$ 102,200,000	\$ 153,300,000	\$ 204,400,000	\$ 255,500,000	\$ 511,000,000	\$ 766,500,000
Passenger Trains			\$ 255,500,000	\$ 255,500,000	\$ 255,500,000	\$ 255,500,000	\$ 255,500,000	\$ 255,500,000
Total Train Revenue			\$ 357,700,000	\$ 408,800,000	\$ 459,900,000	\$ 511,000,000	\$ 766,500,000	\$ 1,022,000,000
Truck Stop:								
Fuel	\$ 7.50 per trk		\$ 5,475,000	\$ 8,212,500	\$ 10,950,000	\$ 13,687,500	\$ 27,375,000	\$ 41,062,500
Overnight Parking			\$ 6,205,000	\$ 6,205,000	\$ 6,205,000	\$ 6,205,000	\$ 6,205,000	\$ 6,205,000
Food, Showers, etc.			\$ 9,125,000	\$ 9,125,000	\$ 9,125,000	\$ 9,125,000	\$ 9,125,000	\$ 9,125,000
Warehouses			\$ 1,920,000	\$ 1,920,000	\$ 1,920,000	\$ 1,920,000	\$ 1,920,000	\$ 1,920,000
Total Truck Stop Revenue			\$ 22,725,000	\$ 25,462,500	\$ 28,200,000	\$ 30,937,500	\$ 44,625,000	\$ 58,312,500
Total Revenue			\$ 380,425,000	\$ 434,262,500	\$ 488,100,000	\$ 541,937,500	\$ 811,125,000	\$ 1,080,312,500
Expenses:								
Train:								
Operations			\$ 1,600,000	\$ 1,600,000	\$ 1,600,000	\$ 1,600,000	\$ 1,600,000	\$ 1,600,000
Administration	2.0%		\$ 7,154,000	\$ 8,176,000	\$ 9,198,000	\$ 10,220,000	\$ 15,330,000	\$ 20,440,000
Labor	2.0%		\$ 7,154,000	\$ 8,176,000	\$ 9,198,000	\$ 10,220,000	\$ 15,330,000	\$ 20,440,000
Total Train Expense			\$ 15,908,000	\$ 17,952,000	\$ 19,996,000	\$ 22,040,000	\$ 32,260,000	\$ 42,480,000
Truck Stop:								
Fuel	\$ 3.75 per trk		\$ 2,737,500	\$ 4,106,250	\$ 5,475,000	\$ 6,843,750	\$ 13,687,500	\$ 20,531,250
Overnight Parking			\$ 620,500	\$ 620,500	\$ 620,500	\$ 620,500	\$ 620,500	\$ 620,500
Food, Showers, etc.			\$ 6,387,500	\$ 6,387,500	\$ 6,387,500	\$ 6,387,500	\$ 6,387,500	\$ 6,387,500
Warehouses			\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000	\$ 192,000
Total Truck Stop Expense			\$ 9,937,500	\$ 11,306,250	\$ 12,675,000	\$ 14,043,750	\$ 20,887,500	\$ 27,731,250
Total Expenses			\$ 25,845,500	\$ 29,258,250	\$ 32,671,000	\$ 36,083,750	\$ 53,147,500	\$ 70,211,250
Operating Profit			\$ 354,579,500	\$ 405,004,250	\$ 455,429,000	\$ 505,853,750	\$ 757,977,500	\$ 1,010,101,250

Alternative A - Subsidized Loan at 3% Interest Rate

	Utilization of Truck Traffic					
	10%	15%	20%	25%	50%	75%
Operating Profit	\$ 354,579,500	\$ 405,004,250	\$ 455,429,000	\$ 505,853,750	\$ 757,977,500	\$ 1,010,101,250
Depreciation	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000
Interest Expense (1st Year)	\$ 103,500,009	\$ 103,500,009	\$ 103,500,009	\$ 103,500,009	\$ 103,500,009	\$ 103,500,009
Profit Before Tax	\$ 185,929,491	\$ 236,354,241	\$ 286,778,991	\$ 337,203,741	\$ 589,327,491	\$ 841,451,241
Income Tax	30% \$ 55,778,847	\$ 70,906,272	\$ 86,033,697	\$ 101,161,122	\$ 176,798,247	\$ 252,435,372
Net Profit	\$ 130,150,644	\$ 165,447,969	\$ 200,745,294	\$ 236,042,619	\$ 412,529,244	\$ 589,015,869
Add: Depreciation	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000
Add: Interest Expense (1st Year)	\$ 103,500,009	\$ 103,500,009	\$ 103,500,009	\$ 103,500,009	\$ 103,500,009	\$ 103,500,009
Cash Flow Before Debt Service (1st Year)	\$ 298,800,653	\$ 334,097,978	\$ 369,395,303	\$ 404,692,628	\$ 581,179,253	\$ 757,665,878
Interest Expense (1st Year)	103,500,009	103,500,009	103,500,009	103,500,009	103,500,009	103,500,009
Principal Payment (1st Year)	\$ 72,685,091	\$ 72,685,091	\$ 72,685,091	\$ 72,685,091	\$ 72,685,091	\$ 72,685,091
Total Debt Service	176,185,100	176,185,100	176,185,100	176,185,100	176,185,100	176,185,100
Debt Coverage	1.70	1.90	2.10	2.30	3.30	4.30

Alternative B - Subsidized Loan at 6% Interest Rate

Operating Profit	\$ 354,579,500	\$ 405,004,250	\$ 455,429,000	\$ 505,853,750	\$ 757,977,500	\$ 1,010,101,250
Depreciation	65,150,000	65,150,000	65,150,000	65,150,000	65,150,000	65,150,000
Interest Expense (1st Year)	\$ 222,159,845	\$ 222,159,845	\$ 222,159,845	\$ 222,159,845	\$ 222,159,845	\$ 222,159,845
Profit Before Tax	67,269,655	117,694,405	168,119,155	218,543,905	470,667,655	722,791,405
Income Tax	30% -	-	-	\$ 65,563,172	\$ 141,200,297	\$ 216,837,422
Net Profit	\$ 67,269,655	\$ 117,694,405	\$ 168,119,155	\$ 152,980,734	\$ 329,467,359	\$ 505,953,984
Add: Depreciation	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000	\$ 65,150,000
Add: Interest Expense (1st Year)	\$ 222,159,845	\$ 222,159,845	\$ 222,159,845	\$ 222,159,845	\$ 222,159,845	\$ 222,159,845
Cash Flow Before Debt Service (1st Year)	\$ 354,579,500	\$ 405,004,250	\$ 455,429,000	\$ 440,290,578	\$ 616,777,203	\$ 793,263,828
Interest Expense (1st Year)	222,159,845	222,159,845	222,159,845	222,159,845	222,159,845	222,159,845
Principal Payment (1st Year)	\$ 45,932,307	\$ 45,932,307	\$ 45,932,307	\$ 45,932,307	\$ 45,932,307	\$ 45,932,307
Total Debt Service	268,092,152	268,092,152	268,092,152	268,092,152	268,092,152	268,092,152
Debt Coverage	1.32	1.51	1.70	1.64	2.30	2.96



LOCATION OF THE NEW GOTTHARD BASE TUNNEL BETWEEN ZURICH AND LUGANO, SWITZERLAND
OF THE SWISS FEDERAL RAILWAYS FOR HAULING TRUCKS BETWEEN GERMANY AND ITALY

